

SEQUENCE LISTING

<110> GeneProt, Inc
Bairoch, Amos
Bougueleret, Lydie
Niknejad, Anne

<120> ENGINEERED HUMAN KUNITZ-TYPE PROTEASE INHIBITOR

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<150> US 60/358,683
<151> 2002-02-21

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atg gga ctc tca gga ctt ctg cca atc ctg gta cca ttc atc ctt ttg	48
Met Gly Leu Ser Gly Leu Leu Pro Ile Leu Val Pro Phe Ile Leu Leu	
1 5 10 15	
ggg gac atc cag gaa cct ggg cac gct gaa ggc atc ctt ggc aag ccg	96
Gly Asp Ile Gln Glu Pro Gly His Ala Glu Gly Ile Leu Gly Lys Pro	
20 25 30	
tgt ccc aaa atc aaa gtg gaa tgc gaa gtg gaa gaa ata gac cag tgt	144
Cys Pro Lys Ile Lys Val Glu Cys Glu Val Glu Glu Ile Asp Gln Cys	
35 40 45	
acc aaa ccc aga gat tgc cca gaa aac atg aag tgt tgc ccg ttc agc	192
Thr Lys Pro Arg Asp Cys Pro Glu Asn Met Lys Cys Cys Pro Phe Ser	
50 55 60	
cgt gga aag aaa tgt tta gac ttc aga aag gat ata tgc agt atg cca	240
Arg Gly Lys Lys Cys Leu Asp Phe Arg Lys Asp Ile Cys Ser Met Pro	
65 70 75 80	
cag gag gct ggc ccc tgc ctg gcc tcc ata cca cac tgg tgg tac aat	288
Gln Glu Ala Gly Pro Cys Leu Ala Ser Ile Pro His Trp Trp Tyr Asn	
85 90 95	
aaa aaa a act aag atc tgc tcc gaa ttc atc tat ggc ggt agc cag ggg	337
Lys Lys Thr Lys Ile Cys Ser Glu Phe Ile Tyr Gly Gly Ser Gln Gly	
100 105 110	
aac aat aac aac ttc caa act gaa gct atc tgt ctg gtc acc tgc aaa	385
Asn Asn Asn Asn Phe Gln Thr Glu Ala Ile Cys Leu Val Thr Cys Lys	
115 120 125	
aaa tac cat aagtcaccaga ggtcccggtc tcctgtgtc accaaggcca	434
Lys Tyr His	
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cactgggagg tctgggtggt ggctggtcta ttccaagacc tgggtggcgc tggggatgac	494
aaaaccagct ccaatgcaga agtataagta gaaggatatt ttgggaaaga ggggtgggaag	554
ggagggatta gtcaaaggga tattggcaag tatgaggtga gtagtgggtg tagagagaaa	614
acagaagtgg tggagtatcc cagaccaggt cagacggaag cccggtaaac ccagcccagc	674
cctgggcacc attcatcagc caatcattat agtcctttac ttctcactaa accttggtgc	734
tacttctctt cctttgaaag gttatttcta accagggcaa ccacatactt tattggccaa	794
accaaatacac ttttgaaagt gtctcaaggt gaggtgccat taattattac actgagacaa	854
caggcataaa ctgggactct actggacaag tcagaactca tgatcattct aggagccccc	914
aaactcacct tcattccatt cctgccc aaa gatgtaaaaa tgatcccacc tcctttttcc	974

cattaggtgc aagatttggt tcctaattgtg gtcagggtcc aagcatctca ccctttattc 1034
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 ataaa 1339

<210> 9
 <211> 98
 <212> PRT
 <213> Homo Sapiens

<400> 9

Met Gly Leu Ser Gly Leu Leu Pro Ile Leu Val Pro Phe Ile Leu Leu
 1 5 10 15

Gly Asp Ile Gln Glu Pro Gly His Ala Glu Gly Ile Leu Gly Lys Pro
 20 25 30

Cys Pro Lys Ile Lys Val Glu Cys Glu Val Glu Glu Ile Asp Gln Cys
 35 40 45

Thr Lys Pro Arg Asp Cys Pro Glu Asn Met Lys Cys Cys Pro Phe Ser
 50 55 60

Arg Gly Lys Lys Cys Leu Asp Phe Arg Lys Asp Ile Cys Ser Met Pro
 65 70 75 80

Gln Glu Ala Gly Pro Cys Leu Ala Ser Ile Pro His Trp Trp Tyr Asn
 85 90 95

Lys Lys

<210> 10
 <211> 33
 <212> PRT
 <213> Homo Sapiens

<400> 10

Thr Lys Ile Cys Ser Glu Phe Ile Tyr Gly Gly Ser Gln Gly Asn Asn

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<400>	11															
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Met Gly Leu Ser Gly Leu Leu Pro Ile Leu Val Pro Phe Ile Leu Leu				5					10					15		
ggg gac atc cag gaa cct ggg cac gct gaa ggc atc ctt ggc aag ccg																96
Gly Asp Ile Gln Glu Pro Gly His Ala Glu Gly Ile Leu Gly Lys Pro			20					25					30			
tgt ccc aaa atc aaa gtg gaa tgc gaa gtg gaa gaa ata gac cag tgt																144
Cys Pro Lys Ile Lys Val Glu Cys Glu Val Glu Glu Ile Asp Gln Cys							40						45			
acc aaa ccc aga gat tgc cca gaa aac atg aag tgt tgc ccg ttc agc																192
Thr Lys Pro Arg Asp Cys Pro Glu Asn Met Lys Cys Pro Phe Ser						55					60					
tgt gga aag aaa tgt tta gac ttc aga aag gat ata tgc agt atg cca																240
Cys Gly Lys Lys Cys Leu Asp Phe Arg Lys Asp Ile Cys Ser Met Pro					70					75					80	
cag gag gct ggc ccc tgc ctg gcc tcc ata cca cac tgg tgg tac aat																288
Gln Glu Ala Gly Pro Cys Leu Ala Ser Ile Pro His Trp Trp Tyr Asn				85					90					95		
aaa aaa act aag atc tgc tcc gaa ttc atc tat ggc ggt tgc cag ggg																336
Lys Lys Thr Lys Ile Cys Ser Glu Phe Ile Tyr Gly Gly Cys Gln Gly				100				105					110			
aac aat aac aac ttc caa act gaa gct atc tgt ctg gtc acc tgc aaa																384
Asn Asn Asn Asn Phe Gln Thr Glu Ala Ile Cys Leu Val Thr Cys Lys							120					125				

aaa tac cat taa
Lys Tyr His
130

396

<210> 12
<211> 131
<212> PRT
<213> Homo Sapiens

<400> 12

Met Gly Leu Ser Gly Leu Leu Pro Ile Leu Val Pro Phe Ile Leu Leu
1 5 10 15

Gly Asp Ile Gln Glu Pro Gly His Ala Glu Gly Ile Leu Gly Lys Pro
20 25 30

Cys Pro Lys Ile Lys Val Glu Cys Glu Val Glu Glu Ile Asp Gln Cys
35 40 45

Thr Lys Pro Arg Asp Cys Pro Glu Asn Met Lys Cys Cys Pro Phe Ser
50 55 60

Cys Gly Lys Lys Cys Leu Asp Phe Arg Lys Asp Ile Cys Ser Met Pro
65 70 75 80

Gln Glu Ala Gly Pro Cys Leu Ala Ser Ile Pro His Trp Trp Tyr Asn
85 90 95

Lys Lys Thr Lys Ile Cys Ser Glu Phe Ile Tyr Gly Gly Cys Gln Gly
100 105 110

Asn Asn Asn Asn Phe Gln Thr Glu Ala Ile Cys Leu Val Thr Cys Lys
115 120 125

Lys Tyr His
130

<210> 13
<211> 133
<212> PRT
<213> Homo sapiens

<400> 13

Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu
1 5 10 15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg
 20 25 30

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys
 35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser
 50 55 60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro
 65 70 75 80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp
 85 90 95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly
 100 105 110

Asn Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys
 115 120 125

Asn Lys Arg Phe Pro
 130

<210> 14
 <211> 134
 <212> PRT
 <213> Mus musculus

<400> 14

Met Lys Leu Ser Gly Phe Val Ser Ile Leu Val Leu Phe Gly Leu Leu
 1 5 10 15

Ala Arg Val Gln Gly Pro Ser Leu Ala Asp Leu Leu Phe Pro Arg Arg
 20 25 30

Cys Pro Arg Phe Arg Glu Glu Cys Glu His Gln Glu Arg Asp Leu Cys
 35 40 45

Thr Arg Asp Arg Asp Cys Pro Lys Lys Glu Lys Cys Cys Val Phe Asn
 50 55 60

Cys Gly Lys Lys Cys Leu Asn Pro Gln Gln Asp Ile Cys Ser Leu Pro
 65 70 75 80

Lys Asp Ser Gly Tyr Cys Met Ala Tyr Phe Arg Arg Trp Trp Phe Asn
 85 90 95

Lys Glu Asn Ser Thr Cys Gln Val Phe Ile Tyr Gly Gly Cys Gln Gly
 100 105 110

Asn Asn Asn Asn Phe Gln Ser Gln Ser Ile Cys Gln Asn Ala Cys Glu
 115 120 125

Lys Lys Ser Ser Leu Thr
 130

<210> 15
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 15

Met Gly Leu Ser Gly Leu Leu Pro Ile Leu Val Pro Phe Ile Leu Leu
 1 5 10 15

Gly Asp Ile Gln Glu Pro Gly His Ala Glu Gly Ile Leu Gly Lys Pro
 20 25 30

Cys Pro Lys Ile Lys Val Glu Cys Glu Val Glu Glu Ile Asp Gln Cys
 35 40 45

Thr Lys Pro Arg Asp Cys Pro Glu Asn Met Lys Cys Cys Pro Phe Ser
 50 55 60

Arg Gly Lys Lys Cys Leu Asp Phe Arg Lys Asp Ile Cys Ser Met Pro
 65 70 75 80

Gln Glu Ala Gly Pro Cys Leu Ala Ser Ile Pro His Trp Trp Tyr Asn
 85 90 95

Lys Lys Thr Lys Ile Cys Ser Glu Phe Ile Tyr Gly Gly Ser Gln Gly
 100 105 110

Asn Asn Asn Asn Phe Gln Thr Glu Ala Ile Cys Leu Val Thr Cys Lys
 115 120 125

Lys Tyr His
 130

<210> 16
<211> 136
<212> PRT
<213> Mus musculus

<400> 16

Met Arg Leu Trp Gly Leu Leu Pro Phe Leu Val Pro Phe Ile Leu Leu
1 5 10 15

Trp Ser Ile Gln Glu Pro Glu Leu Ala Glu Gly Phe Phe Ile Arg Thr
20 25 30

Cys Pro Arg Val Arg Val Lys Cys Glu Val Glu Glu Arg Asn Glu Cys
35 40 45

Thr Arg His Arg Gln Cys Pro Asn Lys Lys Arg Cys Cys Leu Phe Ser
50 55 60

Cys Gly Lys Lys Cys Met Asp Leu Arg Gln Asp Val Cys Ser Leu Pro
65 70 75 80

Gln Asp Pro Gly Pro Cys Leu Ala Tyr Leu Pro Arg Trp Trp Tyr Asn
85 90 95

Gln Glu Thr Asp Leu Cys Thr Glu Phe Ile Tyr Gly Gly Cys Gln Gly
100 105 110

Asn Pro Asn Asn Phe Pro Ser Glu Gly Ile Cys Thr Val Val Cys Lys
115 120 125

Lys Lys Gln Met Ser Ser Trp Ile
130 135